

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER • 2014****Subject Code: 150105****Date: 26-06-2014****Subject Name: Operation and Maintenance of Aircraft****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain acronym “FACTOR” used for chemical agent in aviation industries under topic hazardous material. **07**
(b) Explain typical fuel system with figure and write types of fuel tanks fitted in aircraft wings. **07**
- Q.2** (a) Explain transport aircraft fuselage. Why dose it have pressurized passenger compartment? **07**
(b) What do you understand by aircraft maintenance? Explain types of inspection. **07**
- OR**
- (b) Explain purpose, types and configuration of landing gears with figures and aircraft landing load. **07**
- Q.3** (a) Explain single phase full wave rectification to change A.C. supply in to D.C. supply with schematic diagram. **07**
(b) What is thermocouple and circuitry symbol? Using thermocouple explain EGT indicator with working diagram. **07**
- OR**
- Q.3** (a) Explain three phase tachometer with diagram. How and where its probe is connected? **07**
(b) What is thrust augmentation? Explain number of methods for engine augmentation with figure. **07**
- Q.4** (a) Explain electronic horizontal situation indicator with block diagram. **07**
(b) Explain vhf trans-receiver with circuit diagram showing all stages. **07**
- OR**
- Q.4** (a) Explain multi spar cantilever type of wing structure for transport aircraft. **07**
(b) What are doublers? Explain with application and location. How windows are structured on aircraft? Draw figures. **07**
- Q.5** (a) List different types of welding techniques. Explain TIG welding in details and name gas used with its purpose. **07**
(b) Explain engine starting procedure stepwise. **07**
- OR**
- Q.5** (a) Enlist fuel system components and explain. **07**
(b) Describe oil lubricating system used in aircraft engine and lubricating system components. **07**
